The Math Initiative and Think Through Math: Annual Program Update

January 24, 2015

Presented to:

Idaho Senate Education Committee

Presented by:

Glen Zollman, VP State Services
Louis Piconi, EVP & Founder

AGENDA

- Discussion of The Math Initiative and TTM
- The TTM System
  - B5 Key Components
  - In-State Professional Development Team
- Program Metrics and Implementation
  - Training Metrics
  - Program Metrics
  - Student Engagement
  - Technology Metrics
- Always Improving: New for SY2015-2016

THE TTM SYSTEM FOR SUCCESS

TTM's SYSTEM for SUCCESS

Student Motivation

"Just in Time" Access to Live Teachers

Adaptive Math Content

Actionable Real-Time Reports

Parental Engagement

PROGRAM METRICS & IMPLEMENTATION

TRAINING METRICS

TTM & IDAHO TEACHERS WORKING TOGETHER

Data Through Jan. 20	
	SY2014-2015
Regional Trainings	9
Site Training Visits	101
Site Coaching Visits	95
Administrative Visits	92

PROGRAM METRICS

IS THE IDAHO TTM PROGRAM STILL GROWING?

Full School Year				
	SY2012-2013	SY2013-2014	*SY2014-2015**	3 Yr Change
Districts	92	82	*88*	
Schools	320	312	*324*	
Teachers & Admins	n/a	3,632	*4,243*	
Students Enrolled	39,560	37,688	*225,393*	
Problems Completed	12,900,000	16,116,324	*22,135,332*	*+37%*
Problems Per Student	403	503	*573*	

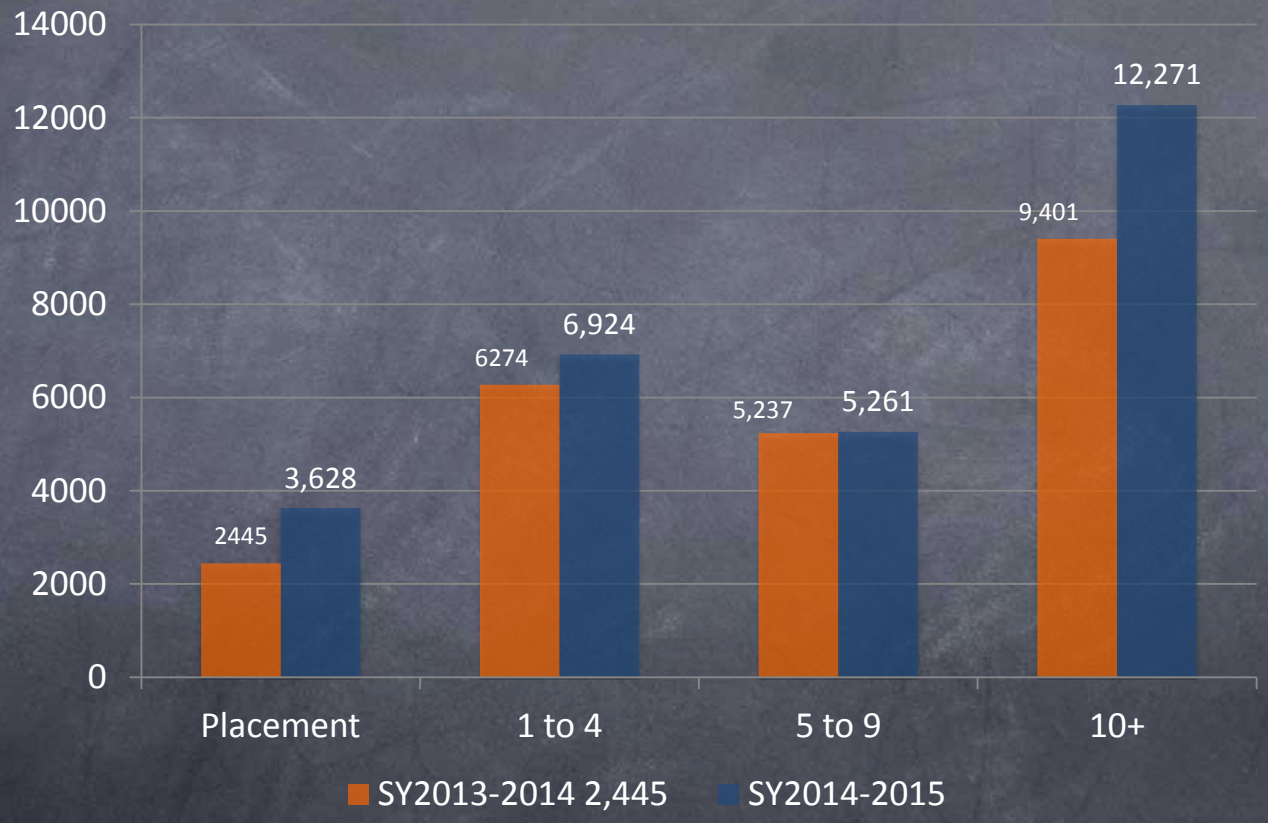
* *Projected Totals for SY2014-2015*

** *ID Contract is for 32,000 student enrollments*

STUDENT ENGAGEMENT

LESSONS COMPLETED STUDENT DISTRIBUTION

(as of Jan. 20)



TECHNOLOGY ANALYSIS

DOES TTM SCALE WITH IDAHO'S NEEDS?

Month	Uptime %	Average Page Load Time (seconds)	Requests (in millions)
Jan-14	100%	2.4	364
Feb-14	99.97%	2.3	415
Mar-14	99.95%	2.34	338
Apr-14	99.99%	2.31	362
May-14	99.99%	2.5	275
Jun-14	100%	2.4	97.8
Jul-14	100%	2.16	40.1
Aug-14	100%	1.98	18.1
Sep-14	99.99%	1.87	160
Oct-14	100%	1.89	283
Nov-14	100%	1.91	296
Dec-14	100%	1.96	245

Data extracted from New Relic third-party monitoring

STUDENT ENGAGEMENT

SHORT-TERM MOTIVATION

TEAM OR INDIVIDUAL MODELS

October

November

December

January

February

March

June-July

MOTIVATION

SHORT-TERM – IDAHO CUSTOMIZED

- 1st Semester Motivation Program
- Class v. Class Structure
- 20 Regional Champions
- Recognition for Gurus of Giving, Weekend Warriors, Holiday Work, and State Champion

- 2nd Semester Motivation Program
- State v. State Structure
- Weekly Recognition for Top 20 Classes
- 20 Regional Recognition Programs
- Recognition for Top Classes Overall and Winning State

T T M

STUDENT ENGAGEMENT

IDAHO MATH CUP

State Champion
Twin Lake Elementary School, Lakeland District
Ms. Deanna Watkins' Enrichment class

State Runners Up
Boise School District White Pine Elementary, Mr. Keiser's 2014-2015 A
Boise School District, Collister Elementary, Mr. Robinson's HG class

Idaho Gurus of Giving Champion
Comstock Math Class of Cecil D. Andrus Elementary School. Ms. Comstock's class donated a total of $54 to The Wounded Warrior Project.

Idaho Evening and Weekend Warriors Champion
Mrs. Troy's class of Highlands Elementary School, Boise School District.

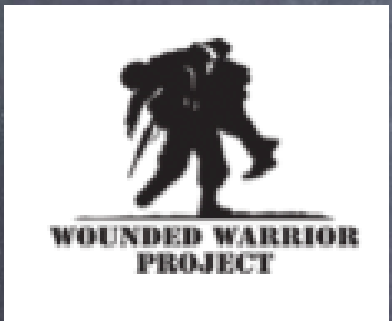
Idaho Holiday Heroes Champion
Holton Algebra 1 p4 class of Homedale Middle School, Homedale Joint District.

LONG-TERM MOTIVATION

SOCIAL MOTIVATION

A SYSTEM FOR MOTIVATION

Long-Term Motivators



To help recognize Veteran's Day this year, TTM offered to match student donations to the Wounded Warrior Project on November 11. Students donated $4935 and TTM matched it to reach $9870. That's about 2M problems completed to support our troops!

Program Feedback

I am liking having TTM in my classroom.. I like the fact that students have something to work towards, they can use the points however they want. I feel it is a big incentive for them. I also like the feedback it gives me because I am able to take that feedback and within my intervention group break them into smaller groups to better help them learn a concept. I am really glad we have had the opportunity to work with this program!"

Jessica Nukaya, Teacher
Farnsworth Elementary, Jefferson County Joint District

"I would say TTM has definitely impacted our ISAT scores. All kids were proficient or advanced, with most being advanced and those proficient were several points from advanced."

Sherry Martin, Teacher
Webster Elementary, Lewiston Independent School District

Program Feedback

“2011 and now finally ‘IDAHO STATE MATH CUP CHAMPS!’ These kids have worked really hard especially at nights and on weekends. I am really proud of their efforts and persistence. This is a great bunch of kids and I am really happy for them. Being called a "STATE CHAMP" in any area is quite an accomplishment and happens very rarely for most people. These kids are only 10 and 11 and have reached a goal some never attain in a lifetime. I am very proud to be their teacher.”

Deanna Watkins, Teacher
Twin Lakes Elementary, Lakeland School District

Think Through Math is a good reinforcement of what we’re learning, and also a preview and foundation to what we’ll be doing later in the year. Students LOVE it! They like the challenge and feel rewarded by passing lessons that were difficult for them”

Deirdre Dingaman, Teacher
Donnelly Elementary, McCall/Donnelly School District

Program Feedback

"Think Through Math has allowed me to differentiate for my students, provide a different avenue for student's to work with the common core standards, and engage the students using technology. I especially like the way the program has built-in motivation such as working with their avatars, classroom incentives, and additional contests and prizes. Plus, the fact that they are able to get help from a tutor or the help tabs when I am not around adds another layer of "teaching". Further, I feel like the Think Through Math program mirrors the types of tasks and questions that students are asked on the SBACC. In my opinion, no other program does quite the same job that Think Through Math does for my students.

Kristina Davenport, Teacher
River City Middle School, Post Falls School District

"We absolutely love Think Through Math and so do my students. They love being able to use their points to decorate their avatars. They can't wait to go to the lab each week."

Christy Swafford, Teacher
Oregon Trail Elementary, Twin Falls School District

Program Feedback

“I heard of a student, from a parent perspective, that was a bit "bored" with school. Now that he gets to do TTM after showing his understanding of the math in the classroom, he doesn't complain about being bored! In fact, his older brother had a question about one of his homework questions and the brother ...two years younger ...showed him a visual model he learned from TTM that assisted the older brother in understanding his mathematics' homework!”

Jill Schmidt, Curriculum Director
Lewiston Independent School District

“I align TTM lessons with my lesson plans and then we sometimes use TTM as a class or students can individually work on lessons after a test or when they complete their regular math work. I used TTM this last summer to prepare students to take Algebra. We had a group of 7th graders that wanted to take Algebra as 8th graders but didn’t have the advantage of taking a formal pre-algebra course. I set them up on TTM over the summer to help them prepare. The program strengthened their skills enough to be successful in Algebra this year. ”

Michelle Hoye, Teacher
Mountain Home Jr. High, Mountain Home District

Program Feedback

"I was so, so proud to hear that my wonderful class won the Gurus of Giving part of the Idaho Math Cup! It just brought tears to my eyes as I shared the great news with them earlier today. Their most generous spirit was especially meaningful to me because my son is in the Army and has seen some of his friends wounded in combat. I was so happy when the kiddos voted to dedicate their first goal of the year to the Wounded Warrior project. Thanks to TTM for making the charitable donation opportunity part of your program.

Kathy Comstock, Teacher
Andrus Elementary, West Ada School District

ALWAYS IMPROVING

CONTENT

New Lessons Targeting New Standards

Released

- Odd or Even
- Input-Output Tables
- Classifying 3-Dimensional Figures
- Area of Basic Composite Figures
- Adding and Subtracting Time
- Capacity or Weight
- Introduction to Data Displays
- Symmetry
- Angles 0 to 180
- Units of Measure - Customary
- Units of Measure - Metric
- Classifying 2-Dimensional Figures
- Introduction to Scatter Plots
- Classifying Rational Numbers
- Using Ratios to Solve Problems
- Concept of Ratios and Rates
- Independent and Dependent Quantities
- Summarizing Data
- Data Analysis
- Similarity
- Simulations of Simple and Compound Events
- Sampling
- Comparing Data
- Classifying and Ordering Real Numbers
- Dilations
- Comparing Linear and Nonlinear Functions
- Congruence
- Deviation from the Mean
- Graphing Inequalities and Systems of Inequalities in Real-World Situations
- Equations of Parallel and Perpendicular Lines
- Correlation
- Solving Quadratics – Completing the Square
- Graphing Polynomial Functions
- Using Rational Exponents to Rewrite Expressions
- Solving Rational and Radical Equations I
- Solving Rational and Radical Equations II
- Sequences – A Type of Function I
- Sequences – A Type of Function II

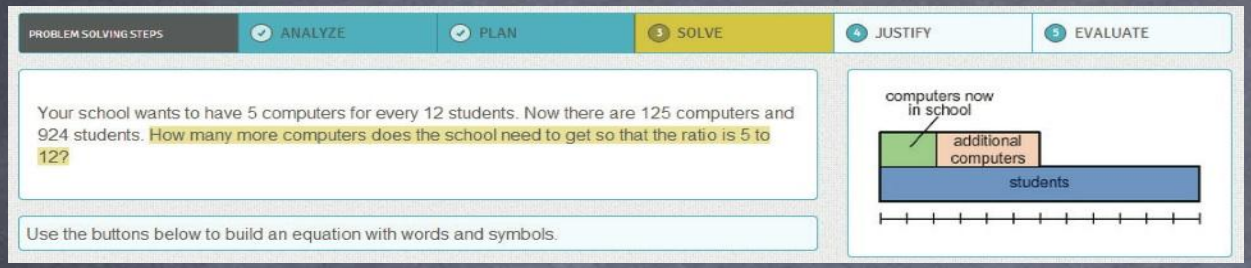
Financial Literacy

- Money Sense
- Supply and Cost
- Credit Sense
- Saving Money
- Money Decisions
- Expenses and Profit
- Methods of Payment
- Balancing a Budget
- Credit Reports
- Paying for College
- Creating a Budget
- Cost of Loans

NEW PROBLEM TYPES

SY2014-2015

NEW PROBLEM TYPES:



- **Problem Solving Process: Designed for Rigor**

Rigorous standards describe ways in which students are expected to engage with mathematics, develop habits of minds, practices and processes. The learning goals of the PSP items include:

  - Learn positive habits of mind articulated
  - Learn a process for making sense of and solving complex problems
  - Represent relationships between multiple quantities using word equations
  - Interpret numeric solutions in context
  - Analyze and reflect on the problem solving process

- **Multiple Drag and Drop**
- **Matching**
- **Fill in the Blank (Multiple)**

CONTINUAL IMPROVEMENT

SY2014-2015

- Tablet Delivery
- Educational Games
- Groupings Reports Aligned to Standards or Content Area
- Dual Pathways
- Batch Uploads for Entire State